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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,217	10/13/2000	Yoshiaki Tomotake	2000-1428A	3623

7590 04/10/2006

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EXAMINER	
FERGUSON, LAWRENCE D	
ART UNIT	PAPER NUMBER
1774	

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

- Renail - Office Action Summary	Application No. 09/673,217	Applicant(s) TOMOTAKE ET AL.	
	Examiner Lawrence D. Ferguson	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2005*. and 28 December 2005

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed October 14, 2005. Claims 13 and 14 were amended rendering claims 13-15 pending. As indicated in the interview summary from May 05, 2005, the case was placed in Non-Final Status.

Claim Rejections – 35 USC § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasahara et al. (U.S. 6,165,606) in view of Suenaga et al. (U.S. 6,133,170).

Kasahara discloses an ink jet recording sheet (column 4, lines 40-41) which conventionally have absorptive property and a high ink (color) density (column 2, lines 1-6) where the layer has an absorption time expressed in liquid transfer volume when the ink absorbing side of the recording sheet is measured by J. Tappi No. 51-87 (column 14,lines 63-67). The reference further discloses the recording paper comprises pulp such s LBKP and NBKP (column 5, lines 61-67) which are hardwood bleached

kraft pulp and softwood bleached draft pulp, respectively. Kasahara does not disclose the recording paper has to be coated.

Although Kasahara discloses material used to make mercerized pulp (LBKP and NBKP), the reference does not explicitly disclose mercerized pulp. Suenaga teaches a recording paper (column 9, lines 17-26) comprising bleached mercerized pulps (column 7,lines 1-6). Kasahara and Suenaga are analogous art because they are both from the same field of recording papers. It would have been obvious to one of ordinary skill in the art to mercerize the pulp of Kasahara because Suenaga teaches mercerizing the pulp material reduces the density of the recording paper (column 7, lines 6-8). Neither reference shows that the ink jet recording paper has a weight percent of the mercerized pulp as in instant claim 13 or the amount of liquid transfer length. However, such weight percentage and amount of liquid transfer length are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of the weight percent and amount of liquid transfer length, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. weight percentage and amount of liquid transfer length) fails to render claims patentable in the absence of unexpected results. The aforementioned limitations are optimizable as they directly affect the integrity and resiliency of the recording paper. It would have been obvious to one of ordinary skill in the art to make the recording paper with the limitations of the weight percentage and amount of liquid transfer length since it has been held that discovering an optimum

value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 USPQ 215 (CCPA 1980).

In claim 13, the phrase, "when distilled water has been set at 50uL in a head box of 1mm slit width and 15mm slit length and the moving speed of a test specimen has been set to 5.0mm/sec" introduces a process limitation to the product claim. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims. Additionally, in claim 13, the phrase, "for improving ink absorption" is an intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963).

Response to Arguments

4. Arguments to rejection made under 35 U.S.C. 103(a) as being unpatentable over Akiya et al. (U.S. 4,758,461) in view of Suenaga et al. (U.S. 6,133,170) have been considered and are moot based on new grounds of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LF

L. Ferguson
Patent Examiner
AU 1774

RENA DYE
SUPERVISORY PATENT EXAMINER
A.U. 1774 4/7/06